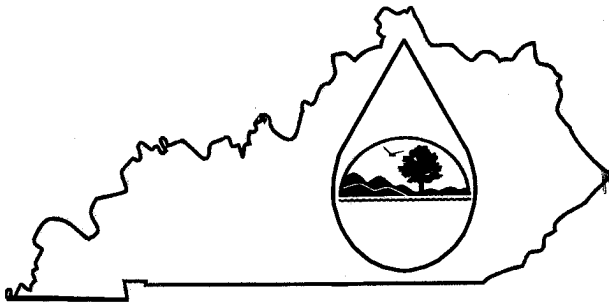


KPDES FORM 1

AI 1959

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT APPLICATION



NOV 30 2007

This is an application to: (check one)

- ☐ Apply for a new permit.
☒ Apply for reissuance of expiring permit.
☐ Apply for a construction permit.
☐ Modify an existing permit.

Give reason for modification under Item II.A.

A complete application consists of this form and one of the following:

Form A, Form B, Form C, Form F, or Short Form C

For additional information contact:

KPDES Branch (502) 564-3410

| | | | | | | | | | |
|---|--|---------------|---|---|--|---|---|---|---|
| I. FACILITY LOCATION AND CONTACT INFORMATION | | AGENCY USE | 0 | 0 | 4 | 2 | 2 | 2 | 6 |
| A. Name of business, municipality, company, etc. requesting permit Louisville & Jefferson County Metropolitan Sewer District | | | | | | | | | |
| B. Facility Name and Location | | | | | C. Facility Owner/Mailing Address | | | | |
| Facility Location Name: | | | | | Owner Name: | | | | |
| Lake Forest STP (Beckley Station) | | | | | Metropolitan Sewer District | | | | |
| Facility Location Address (i.e. street, road, etc.): | | | | | Mailing Street: | | | | |
| 14000 Beckley Trace | | | | | 700 West Liberty Street | | | | |
| Facility Location City, State, Zip Code: | | | | | Mailing City, State, Zip Code: | | | | |
| Prospect, Kentucky 40245 | | | | | Louisville, Kentucky 40203 | | | | |
| | | | | | Telephone Number: (502) 564-6000 | | | | |

II. FACILITY DESCRIPTION

A. Provide a brief description of activities, products, etc: Residential & Commercial Wastewater Treatment (non-industry); Publically owned treatment Works

B. Standard Industrial Classification (SIC) Code and Description

| | | | |
|-----------------------------------|---|--|--|
| Principal SIC Code & Description: | 6552; Land Subdivision & Land Development | | |
| Other SIC Codes: | 4952; Sewage Treatment Fac. | | |

III. FACILITY LOCATION

| | |
|---|---|
| A. Attach a U.S. Geological Survey 7 1/2 minute quadrangle map for the site. (See instructions) | |
| B. County where facility is located: Jefferson | City where facility is located (if applicable): Louisville |
| C. Body of water receiving discharge: Unnamed tributary at mp 0.13 to unnamed tributary at mp 0.20 to Chenoweth Run at mile point 1.70 | |
| D. Facility Site Latitude (degrees, minutes, seconds): 38° 15' 00" | Facility Site Longitude (degrees, minutes, seconds): 85° 29' 50" |
| E. Method used to obtain latitude & longitude (see instructions): USGS Topographic Map | |
| F. Facility Dun and Bradstreet Number (DUNS #) (if applicable): | |

IV. OWNER/OPERATOR INFORMATION**A. Type of Ownership:**☒ Publicly Owned ☐ Privately Owned ☐ State Owned ☐ Both Public and Private Owned ☐ Federally owned**B. Operator Contact Information (See instructions)**

Name of Treatment Plant Operator:

John Kessel

Telephone Number:

(502) 241-9310

Operator Mailing Address (Street):

5512 Hitt Lane

Operator Mailing Address (City, State, Zip Code):

Louisville, Kentucky 40241

Is the operator also the owner?

Yes ☐No ☒

Is the operator certified? If yes, list certification class and number below.

Yes ☒No ☐

Certification Class:

III

Certification Number:

15248

V. EXISTING ENVIRONMENTAL PERMITS

Current NPDES Number:

KY0042226

Issue Date of Current Permit:

August 1, 2003

Expiration Date of Current Permit:

March 31, 2008

Number of Times Permit Reissued:

Date of Original Permit Issuance:

Sludge Disposal Permit Number:

Kentucky DOW Operational Permit #:

Kentucky DSMRE Permit Number(s):

C. Which of the following additional environmental permit/registration categories will also apply to this facility?

| CATEGORY | EXISTING PERMIT WITH NO. | PERMIT NEEDED WITH PLANNED APPLICATION DATE |
|--|--------------------------|--|
| Air Emission Source | N/A | N/A |
| Solid or Special Waste | N/A | N/A |
| Hazardous Waste - Registration or Permit | N/A | N/A |

VI. DISCHARGE MONITORING REPORTS (DMRs)

KPDES permit holders are required to submit DMRs to the Division of Water on a regular schedule (as defined by the KPDES permit). The information in this section serves to specifically identify the department, office or individual you designate as responsible for submitting DMR forms to the Division of Water.

| | |
|---|------------------------------|
| A. Name of department, office or official submitting DMRs: | Dennis Thomasson |
| B. Address where DMR forms are to be sent. (Complete only if address is different from mailing address in Section I.) | |
| DMR Mailing Name: | Cedar Creek Wastewater Plant |
| DMR Mailing Street: | 8405 Cedar Creek Rd |
| DMR Mailing City, State, Zip Code: | Louisville, Kentucky 40211 |
| DMR Official Telephone Number: | (502) 239-7695 |

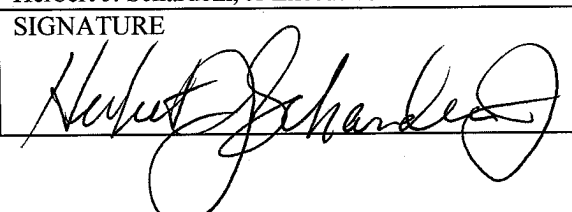
VII. APPLICATION FILING FEE

KPDES regulations require that a permit applicant pay an application filing fee equal to twenty percent of the permit base fee. Please examine the base and filing fees listed below and in the Form 1 instructions and enclose a check payable to "Kentucky State Treasurer" for the appropriate amount. Descriptions of the base fee amounts are given in the "General Instructions."

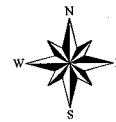
| | |
|---|----------------------|
| Facility Fee Category: | Filing Fee Enclosed: |
| Public Owned Treatment Works (No Fee Due) | N/A |

VIII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| | |
|---|--|
| NAME AND OFFICIAL TITLE (type or print): | TELEPHONE NUMBER (area code and number): |
| Herbert J. Schardein, Jr Executive Director | (502) 540-6000 |
| SIGNATURE | DATE: |
|  | 11/27/07 |

403 - Lake Forest Capacity 0.470 MGD



- ▲ Discharge Point
- Sewer Treatment Plant

USGS Fisherville (Ky) Quadrangle
Projection is UTM Zone 16 NAD 83 Datum

| Latitude | | | Longitude | | |
|----------|---------|---------|-----------|---------|---------|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 38 | 15 | 00 | 85 | 29 | 50 |

J:\gis_records\project_mxds\I&FPRequests\KPDES\lake_forest_talley.mxd

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COUNTY METROPOLITAN SEWER DISTRICT (MSD),
LOUISVILLE WATER COMPANY (LWC),
LOUISVILLE METRO GOVERNMENT, and
JEFFERSON COUNTY PROPERTY VALUATION
ADMINISTRATOR (PVA).
All Rights Reserved.

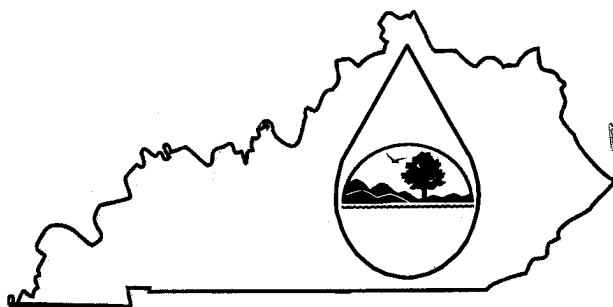


MSD



KPDES FORM SC

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM



PERMIT APPLICATION

A complete application consists of this form and Form 1.
For additional information, contact: KPDES Branch, (502) 564-3410.

| | | | | | | | | | | | |
|---|--|--|--|---------------|---|---|---|---|---|---|---|
| NAME OF FACILITY: Lake Forest STP (Beckley Station) | | | | | | | | | | | |
| I. FACILITY DISCHARGE FREQUENCY | | | | AGENCY USE | 0 | 0 | 4 | 2 | 2 | 2 | 6 |
| A. Do discharge(s) occur all year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (Complete Item IX for intermittent discharges.) | | | | | | | | | | | |
| B. How many days per week? | | | | 7 | | | | | | | |
| II. A. Give the basis of design for sizing of the wastewater facility (see instructions): Residential Connections: 1464 Commercial Connections: 18 Industrial Connections: 0 | | | | | | | | | | | |
| B. If new discharger, indicate anticipated discharge date: | | | | | | | | | | | |
| C. Indicate the design capacity of the treatment system: | | | | 0.470 MGD | | | | | | | |

III. Outfall Location (see instructions)

| Outfall (list) | LATITUDE | | | LONGITUDE | | | RECEIVING WATER (name) |
|---|----------|---------|---------|----------------------|---------|---------|---|
| | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds | |
| 001 | 38 | 15 | 00 | 85 | 29 | 50 | Unnamed tributary 0.13 to an unnamed tributary at mp 0.20 to Chenoweth Run at mp 1.70 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Method used to obtain latitude/longitude (i.e. GPS unit, USGS topographic map coordinates, etc.) | | | | USGS topographic map | | | |

IV. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES (see instructions)

If wastewater other than domestic or sanitary is listed, complete page 4 in addition to page 1 and 2.

| OUTFALL NO. (list) | OPERATION(S) CONTRIBUTING FLOW | | TREATMENT | |
|-----------------------|--------------------------------|------------------------------------|---------------------------|----------------------------|
| | Operation (list) | Avg/Design Flow (include units) | List treatment components | List Codes from Table SC-1 |
| 001 | | 0.396/0.470 | Grinding | 1-L |
| | | 0.396/0.470 | Activated Sludge | 3-A |
| | | 0.396/0.470 | Sedimentation | 1-U |
| | | 0.396/0.470 | Aerated Polishing pond | 3-J |
| | | 0.396/0.470 | Disinfection | 2-F |
| | | 0.396/0.470 | Dechlorination | 2-E |
| | | 0.396/0.470 | Post Aeration | 3-L |
| | | 0.396/0.470 | Odor Control | 2-M |
| | | 0.396/0.470 | Aerobic Digestion | 5-A |
| | | 0.396/0.470 | Discharge | 4-A |

V. Check the type(s) of wastewater discharged.

- ☒ Domestic (60% or more sanitary sewage)
 ☐ Oil field waste
☐ Noncontact cooling water
 ☐ Other (list):

VI. Does all water used at facility (except for human consumption) flow to a treatment plant? ☐ Yes ☐ No**VII. Discharge to other than surface waters. Check appropriate location:**

- ☐ Publicly-owned lake or impoundment Name of lake:
☐ Publicly-owned treatment works (POTW). Name of POTW:
☐ Land application of Effluent
☐ Surface injection (Check term and identify on map) ☐ lateral field; ☐ sinkhole; ☐ sinking stream; ☐ deep well
☐ Closed Circuit (Check appropriate term) ☐ Holding tank; ☐ Mechanical evaporation; ☐ Waste impoundment

VIII. Check the metals present in the discharge if applicable and indicate the quantity discharged per year. (Indicate units).

| | | |
|--------------------------|-----------|-----|
| <input type="checkbox"/> | Antimony | N/A |
| <input type="checkbox"/> | Arsenic | N/A |
| <input type="checkbox"/> | Beryllium | N/A |
| <input type="checkbox"/> | Cadmium | N/A |
| <input type="checkbox"/> | Chromium | N/A |

| | | |
|--------------------------|----------|-----|
| <input type="checkbox"/> | Copper | N/A |
| <input type="checkbox"/> | Lead | N/A |
| <input type="checkbox"/> | Mercury | N/A |
| <input type="checkbox"/> | Nickel | N/A |
| <input type="checkbox"/> | Selenium | N/A |

| | | |
|--------------------------|----------|-----|
| <input type="checkbox"/> | Silver | N/A |
| <input type="checkbox"/> | Thallium | N/A |
| <input type="checkbox"/> | Zinc | N/A |
| <input type="checkbox"/> | | |
| <input type="checkbox"/> | | |

IX. INTERMITTENT DISCHARGES (Complete this section for intermittent discharges.)

| | |
|--------------------------------------|--|
| A. Number of bypass points: 0 | (If bypass points are indicated, information below must be completed for each bypass.) |
|--------------------------------------|--|

| | | |
|-------------------------------------|--------------------------------------|--------------------------------------|
| Check when bypass occurs: | <input type="checkbox"/> Wet Weather | <input type="checkbox"/> Dry Weather |
| Give the number of bypass incidents | per year | per year |
| Give average duration of bypass | hours | hours |
| Give average volume per incident | 1,000 gallons | 1,000 gallons |
| Give reason why bypass occurs: | | |

B. Number of Overflow Points: 0 (If discharge is from an overflow point, the information below must be completed.)

| | | |
|--|--------------------------------------|--------------------------------------|
| Check when overflow occurs: | <input type="checkbox"/> Wet Weather | <input type="checkbox"/> Dry Weather |
| Give the number of overflow incidents: | per year | per year |
| Give average duration of overflow: | hours | hours |
| Give average volume per incident: | 1,000 gallons | 1,000 gallons |

| | |
|--|-----------------|
| C. Number of seasonal discharge points | 0 |
| Give the number of times discharge occurs per year | |
| Give the average volume per discharge occurrence | (1,000 gallons) |
| Give the average duration of each discharge | (days) |
| List month(s) when the discharge occurs | |

X. AREA SERVED (see instructions)

| NAME | ACTUAL POPULATION SERVED |
|--------------------------------|--------------------------|
| Residential Connections | 1464 |
| Commercial Connections | 18 |
| Industrial Connections | 0 |
| TOTAL POPULATION SERVED | 1482 Connections |

(PLEASE COMPLETE THIS PAGE IF OTHER THAN DOMESTIC WASTEWATER IS DISCHARGED)

XI. COOLING WATER ADDITIVES AND THEIR COMPOSITIONS

N/A

| Additive | Composition | Concentration (mg/l) |
|----------|-------------|----------------------|
| | | |
| | | |
| | | |

XII. EFFLUENT CHARACTERISTICS

N/A

A. Indicate results of analysis for pollutants listed below.

| POLLUTANT/PARAMETER | MAX DAILY VALUE | AVG DAILY VALUE | NUMBER OF SAMPLES |
|---------------------------------------|----------------------------|----------------------|-------------------|
| BOD ₅ (CBOD ₅) | 24 mg/l | 5.34 mg/l | 130 |
| TOTAL SUSPENDED SOLIDS | 31 mg/l | 8.3 mg/l | 131 |
| FECAL COLIFORM | 6050 #/100ml | 132 #/100ml | 127 |
| TOTAL RESIDUAL CHLORINE | <0.010 | | 130 |
| OIL AND GREASE | NA | NA | |
| CHEMICAL OXYGEN DEMAND | NA | NA | |
| TOTAL ORGANIC CARBON | NA | NA | |
| AMMONIA | 37.5 | 7.51 | 245 |
| DISCHARGE FLOW | 1.295 MGD | 0.396 MGD | Continuous |
| PH | | | |
| TEMPERATURE (WINTER) | taken with pH not recorded | not required on DMRs | |
| TEMPERATURE (SUMMER) | taken with pH not recorded | not required on DMRs | |

B. Frequency and duration of flow:

XIII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (type or print):

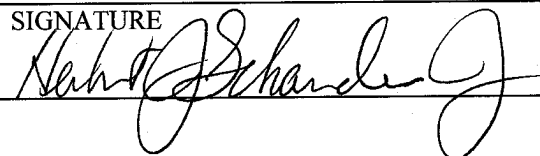
TELEPHONE NUMBER (area code and number):

Herbert J. Schardein, Jr. Executive Director

(502) 540-6000

SIGNATURE

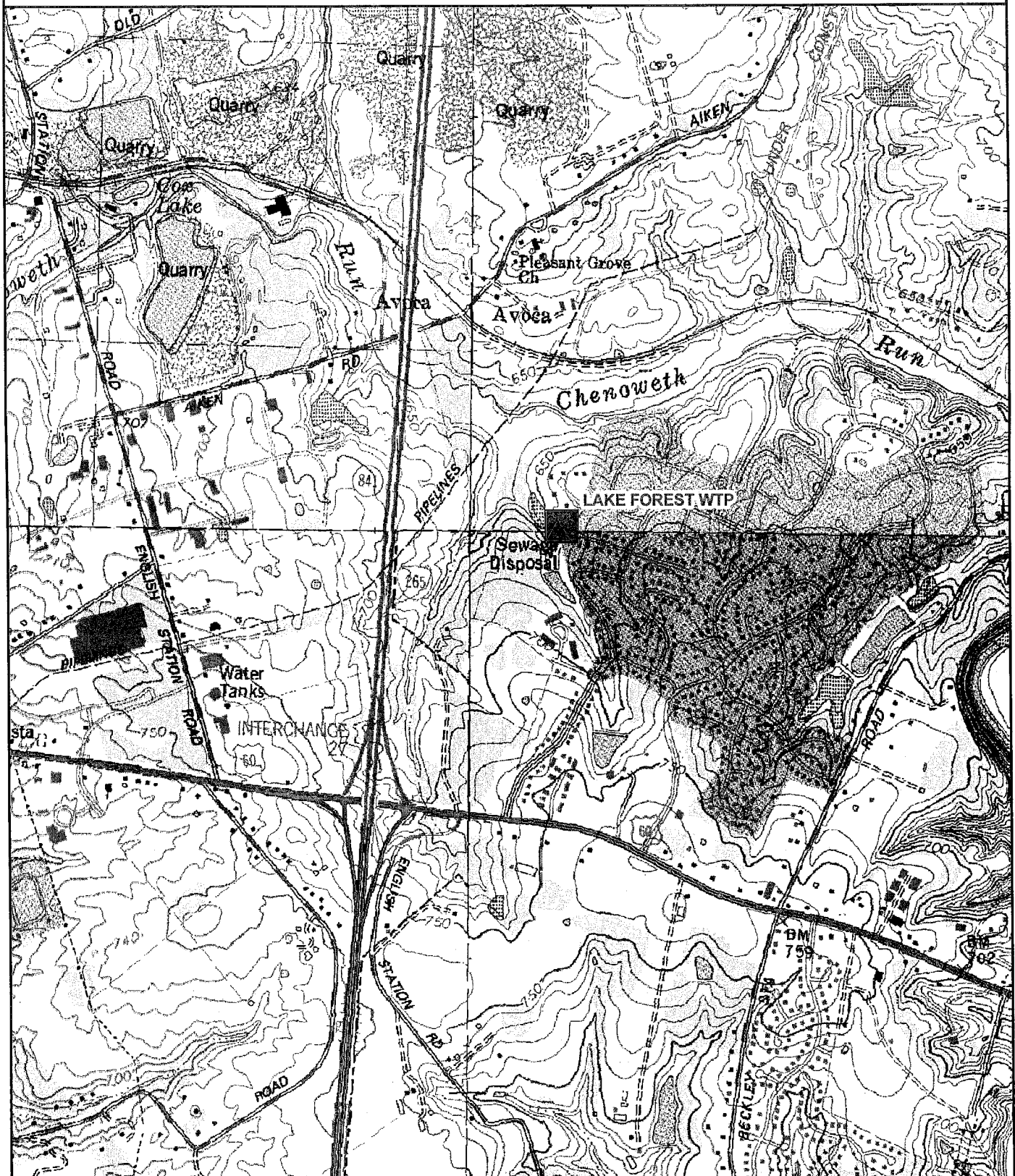
DATE



11/27/07

KPDES Permit Application Attachments

403 - Lake Forest Capacity 0.470 MGD



- ▲ Discharge Point
- Sewer Treatment Plant

USGS Fisherville (Ky) Quadrangle
Projection is UTM Zone 16 NAD 83 Datum

| Latitude | | | Longitude | | |
|----------|---------|---------|-----------|---------|---------|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 38 | 15 | 00 | 85 | 29 | 50 |

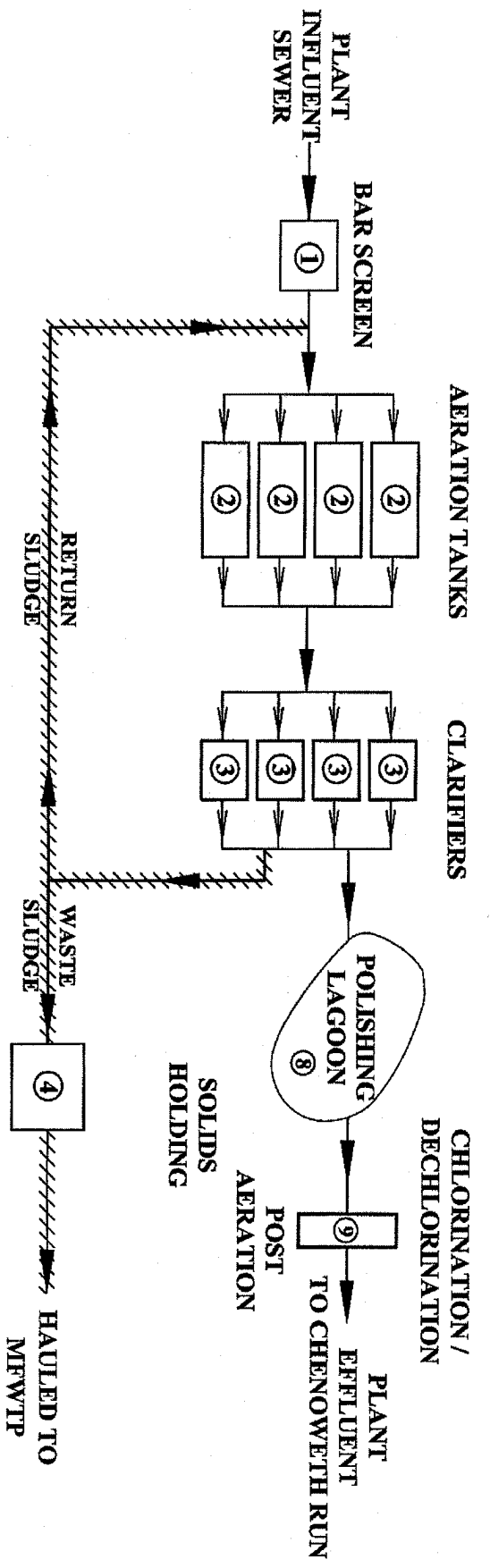
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LOUISVILLE METRO GOVERNMENT, and
JEFFERSON COUNTY PROPERTY VALUATION
ADMINISTRATOR (PVA).
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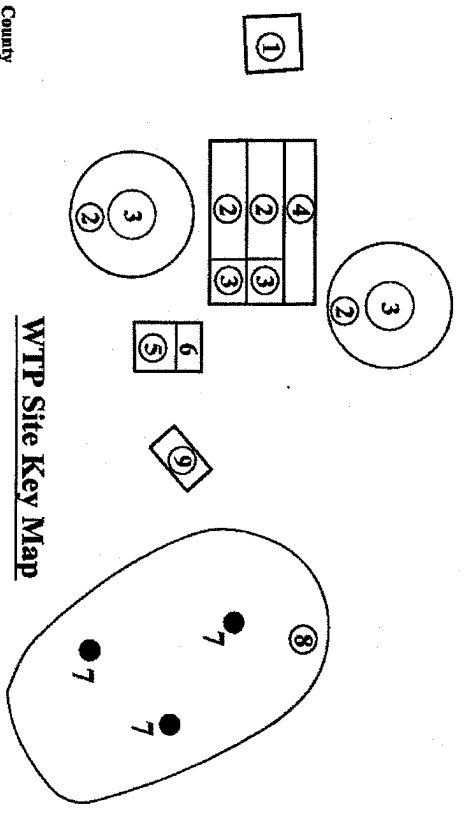


MSD





PROCESS FLOW DIAGRAM



WTP Site Key Map



Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky 40203-1913

LEGEND

- Wastewater Flow
- Biosolids Flow
- 1. Manual Bar Screen
- 2. Aeration Tanks
- 3. Clarifiers
- 4. Solids Holding Tanks
- 5. Blower Building
- 6. Chlorine Room
- 7. Surface Aerators
- 8. Aerated Polishing Lagoon
- 9. Post Aeration/Chlorine Contact and Dechlorination

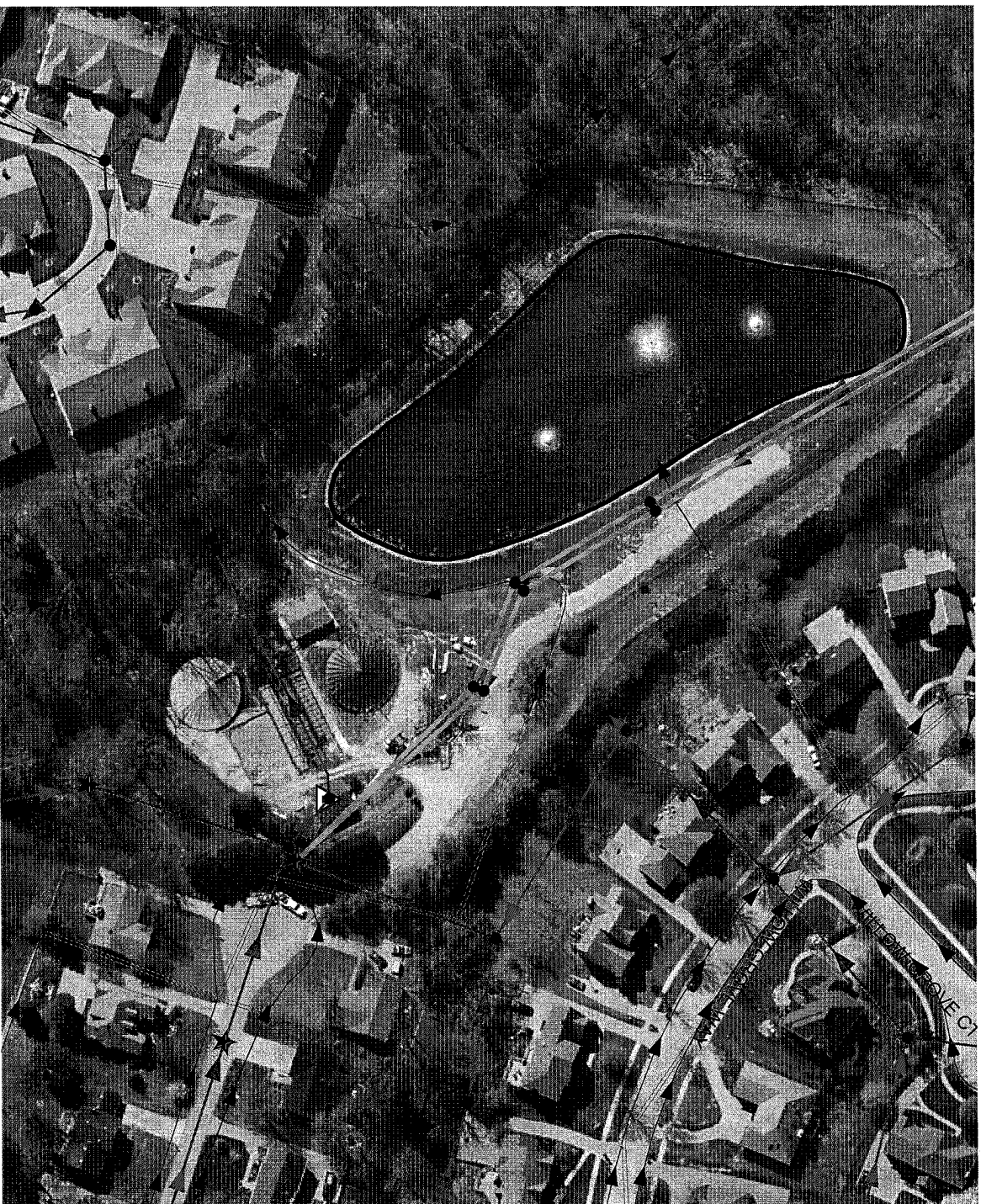
LAKE FOREST WTP PROCESS FLOW PLAN

KPDES #: KY 0042226

| | | |
|--------------|---------------|----------------|
| Scale = None | Drawn By: JDL | Date: 10/30/06 |
|--------------|---------------|----------------|

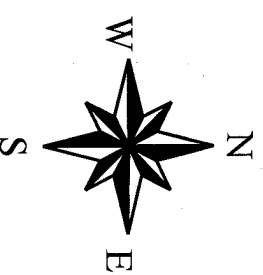
LAKEFOREST wtp flow.dwg

KY0042226 Lake Forest WTP



0.05 0 0.05 0.1 Miles

- ★ Sample Locations
- Sewernd
- SewerINT
- ▾ Sewer
- ▾ Drainage Lines
- ▾ Channels
- ▾ Pipes
- ▾ Treatment Plants
- Text Street Names
- ▾ Streams





ERNIE FLETCHER
GOVERNOR

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION

DIVISION OF WATER

14 REILLY ROAD

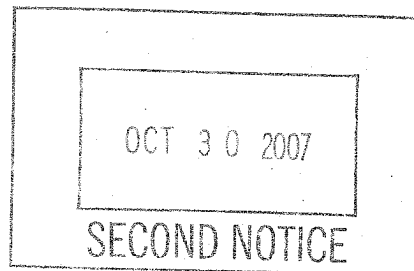
FRANKFORT, KENTUCKY 40601

www.kentucky.gov

TERESA J. HILL
SECRETARY

September 6, 2007

Mr. Daymond Talley
Louisville/Jefferson County MSD
700 West Liberty Street
Louisville, Kentucky 40203



RE: KPDES No. KY0042226
Lake Forest Wastewater Treatment Plant
Jefferson County, Kentucky

Dear Mr. Talley:

Our records indicate that your Kentucky Pollutant Discharge Elimination System (KPDES) permit is due to expire on March 31, 2008. According to the KPDES Regulation 401 KAR 5:060, "any person with a currently effective permit shall submit a new application at least 180 days before the expiration of the existing permit..." **The due date for your permit renewal application is November 10, 2007.**

Please complete the enclosed application forms and return to the KPDES Branch, Division of Water, at the above address by the indicated due date. Applications received after the due date are in violation of 401 KAR 5:060, Section 1, which could result in enforcement action being taken.

If you have any questions regarding the completion of these forms, please contact me at (502) 564-8158, extension 470, or Ann Workman at extension 528.

Sincerely,

Ann S Workman

VLP

Vickie L. Prather, Acting Supervisor
Inventory and Data Management Section
KPDES Branch
Division of Water

VLP:ASW:asw

Enclosures

C: Louisville Regional Office
Division of Water Files



MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

November 29, 2007

NOV 30 2007

Vickie L. Prather, Acting Supervisor
Division of Water
Inventory and Data Management Section
KPDES Branch
14 Reilly Road
Frankfort, Kentucky 40601

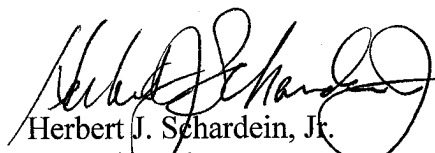
Subject: Renewal Application KPDES No. KY0042226
Lake Forest Wastewater Treatment Plant

Dear Ms. Prather:

Enclosed are the completed applications (Form 1 and Form SC) for the renewal of Lake Forest Wastewater Treatment Plant KPDES permit KY0042226.

If you have any questions please contact Daymond Talley at (502) 540-6980 or at talley@msdlouky.org.

Sincerely,



Herbert J. Schardein, Jr.
Executive Director

HJS/dmt

| | | |
|-----|--------------|------------|
| cc: | D. Guthrie | A. Akridge |
| | D. Thomasson | D. Talley |
| | J. Kessel | M. Jenkins |
| | R. Shaw (eB) | |



Beneficial Use of Louisville's Biosolids
www.louisvillegreen.com



STEVEN L. BESHEAR
GOVERNOR

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

ROBERT D. VANCE
SECRETARY

December 18, 2007

Daymond Talley
Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville, KY 40203

Re: KPDES Application Complete
KPDES No.: KY0042226
Lake Forest MSD
AI ID: 1959
Activity ID: APE20070002
Jefferson County, Kentucky

Dear Mr Talley,

Your revised Kentucky Pollutant Discharge Elimination System (KPDES) permit application for the above-referenced facility was received by the Division of Water on November 30, 2007. A completeness review of your permit application has been conducted. Please be aware that you may be asked to provide additional information to clarify, modify, or supplement your application material. In accordance with 401 KAR 5:075, Section 1(7) you are being provided written notification that your application has been deemed complete as of the date of this letter.

If you have any questions concerning this matter, please call me at (502) 564-8158, extension 590.

Sincerely,

Sara Beard
Environmental Engineer Assistant III
KPDES Branch
Division of Water

SJB

Enclosures

c: Louisville Regional Office
Division of Water Files